

In The Claims

Please amend the claims as follows:

Claims 1-53 (cancelled)

54 (currently amended). A printing process for the transfer of liquid printing substance (2) from an ink carrier (1) to an imprinting material (6), in which, with the help of an energy-emitting apparatus, which, during a process period, emits energy in the form of electromagnetic waves (3), ~~and the printing substance (2) undergoes a change in volume and/or position, wherein, such that~~ with the help of absorption bodies (4), energy is transferred from the electromagnetic waves (3) into the printing substance (2) causing a change in volume and/or position, so that printing substance is first transferred to a print transfer medium and then from the print transfer medium to the imprinting material, said electromagnetic waves being directed so that they avoid passage through the transfer medium.

55. (previously presented) A printing process according to claim 54, characterized in that wherein absorption bodies (4) are used which that are smaller than the wavelength of the electromagnetic waves (3).

56. (previously presented) A printing process according to claim 54, wherein absorption bodies (4) are used that are smaller than 1/10 of the wavelength of the electromagnetic waves (3).

57. (previously presented) A printing process according to claim 54, wherein absorption bodies (4) are used that are smaller than 1/50 of the wavelength of the electromagnetic waves (3).

58. (previously presented) A printing process according to claim 54 wherein the apparatus emits energy in the form of laser light (3).
59. (previously presented) A printing process according to claim 54 wherein a printing substance (2) is used which contains absorption bodies (4).
60. (previously presented) A printing process according to claim 54 wherein the absorption bodies (4) absorb essentially all the light wavelengths.
61. (previously presented) A printing process according to claim 54 wherein the absorption bodies (4) absorb essentially only the radiation with a wavelength or in a wavelength range which corresponds to the wavelength or wavelength range of the electromagnetic waves 3 emitted by the energy-emitting apparatus.
62. (currently amended) A printing process according to claim 6 59, characterized in that the absorption bodies (4) are also used as dye.
63. (previously presented) A printing process according to claim 61 wherein the absorption bodies (4) are accelerated in the direction of the imprinting material (6) by the electromagnetic waves (3) of the energy-emitting apparatus.
64. (currently amended) A printing process according to claim 54 wherein an ink carrier (1) is used ~~on whose~~ having a surface provided to receive the printing substance (2), which surface has absorption bodies (4) ~~are present~~ which form a solid layer.
65. (previously presented) A printing process according to claim 54 wherein printing-point size is controlled by the quantity of energy released by the energy-emitting apparatus.

66. (previously presented) A printing process according to claim 65 wherein the quantity of energy released by the energy-emitting apparatus is controlled by a process period.
67. (previously presented) A printing process according to claim 58 wherein printing-point size is controlled by a profile of the laser light.
68. (previously presented) A printing process according to claim 54 wherein differences in brightness of the image to be printed are achieved by variation of the printing-point size.
69. (previously presented) A printing process according to claim 54 wherein the process period is shorter than 1 μ s.
70. (previously presented) A printing process according to claim 54 wherein the process period is shorter than 250 ns .
71. (previously presented) A printing process according to claim 54 wherein the process period is shorter than 100 ns.
72. (previously presented) A printing process according to claim 54 wherein the process period is shorter than 50 μ s.
73. (previously presented) A printing process according to claim 54 wherein during the process period an energy density higher than 500 kW/cm² is generated at the absorption body (4).

74. (previously presented) A printing process according to claim 54 wherein during the process period an energy density higher than 2 MW/cm^2 is generated at the absorption body (4).
75. (previously presented) A printing process according to claim 54 wherein during the process period an energy density higher than 10 MW/cm^2 is generated at the absorption body (4).
76. (previously presented) A printing process according to claim 54 wherein the absorption bodies (4) are heated during the process period with an average heating rate greater than 10^9 K/s .
77. (previously presented) A printing process according to claim 54 wherein the absorption bodies (4) are heated during the process period with an average heating rate greater than 10^{11} K/s .
78. (previously presented) A printing process according to claim 54 wherein the thickness of the printing substance (2) on the ink carrier is less than $50 \text{ }\mu\text{m}$
79. (previously presented) A printing process according to claim 54 wherein the printing substance (2) is selected so that the viscosity lies between 0.05 and 0.5 Pas.
80. (previously presented) A printing process according to claim 54 wherein for the production of a printing point with a diameter greater than $100 \text{ }\mu\text{m}$, an energy of not more than $10 \text{ }\mu\text{J}$, is transferred.

81. (previously presented) A printing process according to claim 54 wherein through the change in volume and/or position of the printing substance some of the printing substance is removed from the ink carrier and is at least partly transferred to the imprinting material.
82. (currently amended) A printing machine for ~~printing on~~ the transfer of liquid printing substance (2) to an imprinting material, said machine having ~~an imprinting material with~~ an ink carrier (1) for holding ink and an energy-emitting apparatus, for emitting energy in the form of electromagnetic waves during a process period, which energy-emitting apparatus is arranged such that energy can be transferred in a targeted manner onto certain areas of the ink carrier (1), wherein absorption bodies (4) on the ink carrier are provided for absorbing the energy such that with the help of the absorption bodies (4), energy is transferred from the electromagnetic waves (3) into the printing substance (2) causing a change in volume and/or position of printing substance causing printing substance transfer, said machine being arranged so that printing substance is first transferred to a print transfer medium and then from the print transfer medium to the imprinting material, said energy-emitting apparatus being arranged such that said electromagnetic waves are directed so that they avoid passage through the transfer medium
83. (previously presented) A printing machine according to claim 82, wherein the energy-emitting apparatus is a laser.
84. (previously presented) A printing machine according to 82, wherein the absorption bodies (4) are of a size which is smaller than 1 μm .
85. (previously presented) A printing machine according to 82, wherein the absorption bodies (4) are of a size which is smaller than 200 nm.

86. (previously presented) A printing machine according to claim 82, wherein the absorption bodies (4) are of a size which is between 10 and 50 nm.
87. (previously presented) A printing machine according to claim 82, wherein the absorption bodies consist of carbon black particles, titanium nitride or mixtures thereof.
88. (previously presented) A printing machine according to claim 82, wherein the absorption bodies (4) are arranged in an absorption layer (9) arranged on the ink carrier (1).
89. (previously presented) A printing machine according to claim 82, wherein the proportion of the absorption bodies (4) in the absorption layer (5) is greater than 40 wt percent.
90. (previously presented) A printing machine according to claim 88, wherein the absorption layer (9) consists of pressed absorption bodies (4).
91. (previously presented) A printing machine according to claim 88, wherein the absorption bodies (4) are embedded in an organic or inorganic polymer matrix.
92. (previously presented) A printing machine according to claim 88, wherein at the ink carrier (1) has a surface structure which consists of recesses and/or elevations.
93. (previously presented) A printing machine according to claim 82, wherein light-focussing elements are applied to the ink carrier.
94. (previously presented) A printing machine according to claim 82, wherein the ink carrier is transparent and the light-focussing elements are integrated into the ink carrier.

95. (previously presented) A printing machine according to claim 93, wherein the light focusing elements are formed by a flexible polymer film.

96 - 101 (cancelled)

102. (new) The printing process according to claim 54 where the print transfer medium can be roller guided about a radius.

103. (new) The printing process according to claim 54 where the print transfer medium is a continuous blanket.

104. (new) The printing process according to claim 54 wherein printing is line-by-line, areas to be printed within a line being formed by line segments of any choosable length and any choosable position.

105. (new) The printing process according to claim 107 wherein the line-by-line printing takes place with a continuous wave laser, which travels line-by-line down the lines of print following a preset raster and which can be switched on and off or revealed or masked as desired along a line.

106. (new) The printing machine according to claim 82 where the print transfer medium can be roller guided about a radius.

107. (new) The printing machine according to claim 82 where the print transfer medium comprises rubber.

108. (new) The printing machine according to claim 82 where the print transfer medium is a cylinder comprising rubber.